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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,688	09/27/2001	Kirsi Maansaari (nee: Savola)	P 283703 2000852US/HS/HER	8995
909	7590	12/08/2006	EXAMINER PHAN, MAN U	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/963,688	<b>Applicant(s)</b> MAANSAARI (NEE: SAVOLA) ET AL.	
	<b>Examiner</b> Man Phan	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10, 12-20, 22-26, 28 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 11, 21, 27 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/06</u> . | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

1. The application of Maansaari et al. for the "Changing of channel capabilities" filed 09/27/2001 has been examined. This application is a Request for Continued Examination (RCE) under C.F.R. 1.114 filed on 09/18/2006. This application claims Foreign Priority based on the application 20002124 filed September 27, 2000 in Finland. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file. Claims 1-33 are pending in the application.

***Claim Rejections - 35 USC ' 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 7-10, 16-18 and 19, 20, 22-26, 28, 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renucci et al. (US#6,512,762) in view of Duault et al. (US#5,638,365).

With respect to claims 8, 16, 18 and 19, 23, 24 and 25, 30, 31 and 32, 33 Renucci et al. (US#6,512,762) and Duault et al. (US#5,638,365) disclose a novel system and method for controlling the capabilities of a channel allocated to a connection, according to the essential features of the claims. Renucci et al. (US#6,512,762) discloses in Fig. 1 a block diagram illustrated a communication system (10) for telecommunicating information between customer premises equipment (14) and network equipment (12), in which a Gateway 22 (CO-IWF) that links the traditional telecommunication network to the DSL network, and an Integrated Access Device (IAD) residing at a customer premises (CP-IWF) that multiplexes and processes voice and data traffic between the gateway and multiple subscriber lines (establishing channel connection between CO-IWF and CP-IWF)(Col. 1, lines 35 plus and Col. 3, lines 38 plus). It's noted that the gateway 22, data switch 24, DSLAM 26, and IAD 30 are conventionally known as network elements in the reference model for the conventional architecture. The IAD 30 is not an independent network element per se, but rather a subtending subsystem to the gateway 22. Thus, the gateway 22 and the subtending IAD 30 form an independent network element.

Kennedy does not disclose expressly the changing the channel capability of the channel established to the connection into the desired one. However, Kennedy suggests in Fig. 1 that

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Management module 38 (located in the gateway or CO-IWF) also manages the communication of telecommunication information (*connection capabilities*). In a particular embodiment, management module 38 provisions 64 kilobits per second (kb/s) time slots in TDM bus 33 to support communication of telecommunication information between telecommunication interface 32, data packet service module 34, and analog signal service module 36. Management module 38 provisions a time slot in TDM bus 33 for each subscriber line 46 serviced by gateway 22 and stores configuration information (*connection parameters*) associating the time slots with IADs 30 for communicating the telecommunication information over local loop circuit 18 to customer premises equipment 14 (Col. 5, lines 57 plus).

In the same field of endeavor, Duault et al. (US#5,638,365) teaches in Figs 10 & 11 flow diagrams illustrated the function location between signaling entities performing control functions and data transfer, in which the first and second IWFs (Fig. 5) are arranged to change the channel capability into the desired one (Col. 7, lines 57 plus). Duault et al. discloses a method dynamically changes the bit rate or bandwidth of constant bit rate data structures in an Asynchronous Transfer Mode (ATM) communications environment. The method defines within a data channel a Change indicator (CI) indicative of an end user's request for a bit rate change within said data structures. The Change Indicator is continuously transmitted from a source side to a destination side in the ATM environment, along with the data structures on said data channel. Upon receipt at the destination side of a user's request of a bit rate change, the destination side modifies the value of said Change Indicator. The source side, acknowledges the modification of the value of the Change Indicator, whereby the transmission of data structures continues on the data channel with a new constant bit rate (*changing the channel*

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*capability of the channel allocated to the connection into the desired bit rate)* (See Fig. 5, the Abstract and Col. 5, lines 47 plus, Col. 10, lines 38 plus).

Regarding claims 9, 10 and 20, 22 and 26, 28, Duault further teaches in Figs. 14 & 15 depicts a scenario to change a data structure in case of a contention between source side and destination side, in which at the step 2, Signalling source sends the message "Be.sub.-- Prepared.sub.-- To.sub.-- Receive" to AAL Type 1 source to specify the new structure that it will receive when CI will be inverted. Step 3. Signalling destination sends the message "Be.sub.-- Prepared.sub.-- To.sub.-- Receive" to AAL Type 1 destination to specify the new structure that it will receive when CI will be inverted. Step 4. Signalling source sends the message "Change.sub.-- Structure" to Signalling destination and specifies the new structure. Step 5. Signalling destination sends the message "Change.sub.-- Structure" to Signalling source and specifies the new structure (Col. 9, lines 27 plus).

Regarding claims 1-4, 7, they are method claims corresponding to the system claims 8-10, 19, 20, 22-26, 28, 30-33 above. Therefore, claims 8-9 are analyzed and rejected as previously discussed with respect to claims 8-10, 19, 20, 22-26, 28, 30-33.

Regarding claim 17, The Emulated Loop Control Protocol (ELCP) is defined for ISDN PRI port management and AAL2 Channel allocation/de-allocation. The messages used for PRI ELCP are enhanced modifications of messages described in af-vmoa-0145 ATM Forum specification. (see reference 1). The ELCP messages are sent on CID 8 with UUI=26-27 using Framed Mode data with SSSAR and SSTED. ELCP (Emulated Loop Control Protocol) defined in LES specifications allows exchange of channel allocation messages and user port control messages between an interworking function CP-IWF in an access device of the end-user and an

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interworking function CO-IWF in a gateway at the other end of the ATM network. Based on the messages for call setup and release, the CO-IWF will seize or release the necessary ARL2 channels using ELCP.

One skilled in the art would have recognized the need for facilitating the exchange of channel allocation messages between IWFs, and would have applied Duault's teaching of the dynamically changing the length of a structure data transfer in ATM network into Renucci's novel use of the telecommunication information between customer premise equipment (CP-IWF) and network equipment (CO-IWF) includes a subscriber line interface, processing module. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Duault's dynamically structure data transfer mechanism in an ATM network into Renucci's system and method for communicating telecommunication information between customer premises equipment and network equipment with the motivation being to provide a method and system for controlling the capabilities of a channel allocated to a connection.

5. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renucci et al. (US#6,512,762) in view of Duault et al. (US#5,638,365) as applied to the claims above, and further in view of Chen (US#6,553,423).

With respect to claims 12-15, Renucci et al. (US#6,512,762) and Duault et al. (US#5,638,365) disclose the claimed limitations discussed in paragraph 4 above. However, these claims differ from the claims above in that the claims require the feature wherein the first IWF is arranged to detect the necessary change on the basis of the information received from

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another entity of the system; by listening to the channel allocated to the connection. In the same field of endeavor, Chen (US#6,553,423) discloses a technique to dynamically exchange or update routing capabilities between neighboring peer routers in a computer network without disruption to the operation of the routers. A dynamic capability parameter in an Open message of a Border Gateway Protocol (BGP) enables a router to announce a new capability, or revise or remove a previously announced capability, to a neighboring router when a peer connection is established between the routers. Once announced, the dynamic capability allows the router to exchange a capability message containing updates of capabilities without the need for resetting the existing peer connection. As a result, the technique allows non-disruptive configuration and enabling of capabilities in a manner that improves network stability, while reducing interruption of network services (Col. 3, lines 10 plus and Col. 7, lines 7 plus).

One skilled in the art would have recognized the need for facilitating the exchange of channel allocation messages between IWFs, and would have applied Chen's exchanging or updating routing capabilities between routers, and Duault's teaching of the dynamically changing the length of a structure data transfer in ATM network into Renucci's novel use of the telecommunication information between customer premise equipment (CP-IWF) and network equipment (CO-IWF) includes a subscriber line interface, processing module. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Chen's method and apparatus for dynamic exchange of capabilities between adjacent/neighboring networks nodes, and Duault's dynamically structure data transfer mechanism in an ATM network into Renucci's system and method for communicating telecommunication information between customer premises equipment and network equipment



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with the motivation being to provide a method and system for controlling the capabilities of a channel allocated to a connection.

***Allowable Subject Matter***

6. Claims 5-6, 11, 21 and 27, 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein the first IWF is arranged to check in response to the reception of the second message, whether the desired capability change can be performed, and if the capability can be changed into the desired one, to change the capability into the desired one and to transmit to the second IWF a third message which indicates that the desired capability change can be performed at the first end, and the second IWF is arranged to change the capability into the desired one in response to the reception of the third message; wherein in response to a third message received from the second IWF, which third message indicates that the second IWF cannot change the channel capability into the desired one, the first IWF is arranged to modify the desired change and to transmit a new first message, which indicates the result of the modification as the desired change, as specifically recited in claims.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The Corley et al. (US#7,103,668) is cited to show the method and apparatus for distributing multimedia to remote clients.

The Hagirahim et al. (US#6,771,763) is cited to show the method and apparatus for providing efficient VODSL gateway to gateway communication.

The Renucci (US#6,466,573) is cited to show the system and method for communicating telecommunication between a telecommunication switch and customer premises equipment.

The Aslto et al. (US#6,975,879) is cited to show the method and a system for controlling a macrodiversity connection through at least two radio network controllers.

The Meric et al. (US#6,966,063) is cited to show the IEEE set top box device driver.

The Chea, Jr. et al. (US#6,574,313) is cited to show the voice over DSL method and system for supporting a lifeline associated with voice over DSL.

The Chea, Jr. et al. (US#6,546,089) is cited to show the method and system for supporting a lifeline.

8. 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149.

The examiner can normally be reached on Mon - Fri from 6:00 to 3:00 EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

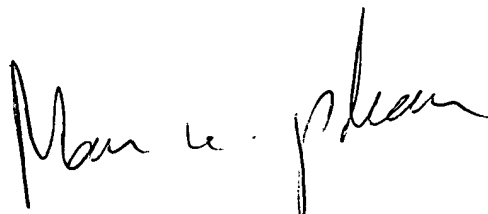
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

12/06/2006.

A handwritten signature in black ink, appearing to read "Man U. Phan", written in a cursive style.

**MAN U. PHAN  
PRIMARY EXAMINER**